IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants	:	Fraenkel, et al.
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For	:	POST-DEPLOYMENT MONITORING AND ANALYSIS OF SERVER PERFORMANCE
Examiner	:	Michael Young Won
Group Art Unit	:	2155

SECOND APPEAL BRIEF

United States Patent and Trademark Office
P.O. Box 1450
Alexandria, VA 22313-1450

This Second Appeal Brief is responsive to the Office Action mailed on October 23, 2006 (the "current Office Action"), which the Examiner issued in response to Appellants' original Appeal Brief. By filing this Second Appeal Brief and a Second Notice of Appeal, Appellants are reinstating the original appeal.

I. REAL PARTY IN INTEREST

The real party in interest in the present application is Mercury Interactive Corporation, which is a subsidiary of Hewlett-Packard Company.

II. RELATED APPEALS AND INTERFERENCES

No related appeals, interferences or judicial proceedings are currently pending.

III. STATUS OF CLAIMS

Claims 1-39, which are attached hereto as an appendix, are currently pending in the application and are the subject of this appeal. All of these claims stand rejected.

IV. STATUS OF AMENDMENTS

On November 14, 2006, Appellants filed an amendment (concurrently with the Second Notice of Appeal) to remove redundant language from dependent Claim 19 and to correct a typographical error in Claim 22. No other amendments have been made in response to either the current Office Action or the preceding final office action.

V. SUMMARY OF CLAIMED SUBJECT MATTER

The present application includes five independent claims. Each independent claim is summarized below, with citations to corresponding portions of the specification and drawings as required by 37 C.F.R. § 41.37(c)(1)(v). These citations are provided to illustrate specific examples and embodiments of the recited claim language, and are not intended to limit the claims.

Independent Claim 1 is directed to a method of monitoring the operation of deployed web site system (30 in Figs. 1 and 26). The method involves monitoring the response times of the web site system (30) from multiple geographic locations, while monitoring server resource utilization parameters associated with the web site system (30) from a computer (166 in Fig. 26) that is local to the web site system (30). (See, e.g., page 6, lines 19-30; Fig. 26, and page 37, line 27 to page 41, line 13). The response times and server resource utilization parameters are automatically analyzed to evaluate whether a correlation exists between changes in the response times and changes in values of the server resource utilization parameters (see, e.g., page 7, lines 1-10; page 43, lines 11-25; and page 44, line 23 to page 46, line 15. See also Figs. 30, 36A and 36B for examples reports that may be generated based on the automated analysis).

Independent Claim 13 is directed to a system for monitoring performance of a deployed transactional server (30 in Fig. 1). The system comprises a first agent (32 in Figs. 1 and 26) and a second agent (166 in Fig. 26). The first agent (32) is configured to monitor the transactional server (30) over a network, and to collect performance data, including response times of the transactional server (see, e.g., page 11, lines 17-29 and page 38, lines 4-9). The second agent (166) is configured to monitor server resource utilization of the transactional server (30), and to

collect data on one or more server resource utilization parameters (see, e.g., page 6, lines 19-30; and page 38, line 9 to page 40, line 26). The system also comprises an analysis component (168 in Fig. 26) that automatically detects correlations between response times of the transactional server, as monitored by the first agent (32), and particular server resource utilization parameters, as monitored by the second agent (166). (See, e.g., page 7, lines 1-10; page 43, lines 11-25; and page 44, line 23 to page 46, line 15.)

Independent Claim 20 is directed to a method for monitoring the performance of a transactional server (30). The method comprises receiving performance data from a plurality of geographically distributed computers (40 in Figs. 1 and 26) that execute transactions on a transactional server (30) while monitoring associated response times (see, e.g., page 11, lines 17-29 and page 38, lines 4-9). The method also comprises receiving server resource utilization data from a computer (166) that monitors server resource utilization of the transactional server (30) during execution of the transactions by the plurality of computers (see, e.g., page 38, line 9 to page 40, line 26; and Fig. 26). The method further comprises automatically analyzing the performance data and the server resource utilization data to detect correlations between the performance of the transactional server and one or more particular server resource utilization parameters. (See, e.g., page 7, lines 1-10; page 43, lines 11-25; and page 44, line 23 to page 46, line 15.)

Independent Claim 25 is directed to a method of monitoring the operation of a deployed transactional server (30). The method comprising monitoring response times of the transactional server as seen from multiple geographic locations (see, e.g., page 11, lines 17-29 and page 38, lines 4-9), and, concurrently, monitoring a plurality of server resource utilization parameters associated with the transactional server (see, e.g., page 38, line 9 to page 40, line 26). The method further comprises programmatically evaluating whether a correlation exists between changes in the response times and changes in values of the plurality of server resource utilization parameters over time. (See, e.g., page 7, lines 1-10; page 43, lines 11-25; and page 44, line 23 to page 46, line 15.)

Independent Claim 33 is directed to a computer-implemented method of analyzing the performance of a server system (30). The method comprises monitoring a first performance

parameter of the server system (30) over a period of time to generate a series of values of the first performance parameter, and monitoring a second performance parameter of the server system (30) over said period of time to generate a series of values of the second performance parameter (see, e.g., page 38, lines 4-15; page 45, line 27 to page 46, line 15; and Fig. 26; note that neither performance parameter has to be a server resource utilization parameter). The method further comprises automatically analyzing the values of the first and second performance parameters to evaluate whether a correlation exists between the first performance parameter and the second performance parameter (see, e.g., page 7, lines 1-10; page 45, line 27 to page 46, line 15; page 51, line 14 to page 52, line 10; and page 53, lines 6-15).

VI. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

The following grounds for rejection are to be reviewed on appeal:

1. The rejection of Claims 1-9, 11-13, 15-22 and 25-39 as being anticipated by Maccabee et al. (U.S. Pat. 6,108,700, hereinafter "Maccabee");

2. The rejection of Claims 10 and 14 under 35 U.S.C. 103(a) as being unpatentable over the combination of Maccabee and Martija et al. (U.S. Pat. 7,039,689, hereinafter "Martija"); and

3. The rejection of Claim 23 and 24 under 35 U.S.C. 103(a) as being unpatentable over the combination of Maccabee and Claiborne (U.S. Pat. 6,462,833).

Appellants reserve the right to disqualify one or more of the references as prior art in the future.

VII. ARGUMENT

For the reasons set forth below, Appellants respectfully submit that the anticipation and obviousness rejections are improper. By declining to present separate arguments in favor of certain dependent claims, Appellants do not imply that the limitations added by these claims are taught by the references.

1. Anticipation rejection of Claims 1-9, 11-13, 15-22 and 25-39 over Maccabee

A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a prior art reference. See *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631; 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). For the reasons explained below, Maccabee does not anticipate any of Claims 1-9, 11-13, 15-22 and 25-39.

Independent Claim 1

Claim 1 reads as follows:

> 1. A method of monitoring the operation of a deployed web site system, the method comprising:
>
> (a) monitoring response times of a web site system as seen from multiple geographic locations, including locations that are geographically remote from each other and from the web site system;
>
> (b) concurrently with (a), monitoring a plurality of server resource utilization parameters associated with the web site system from a computer that is local to the web site system; and
>
> (c) automatically analyzing the response times and server resource utilization parameters as monitored in (a) and (b) over a selected time period to evaluate whether a correlation exists between changes in the response times and changes in values of the plurality of server resource utilization parameters.

The anticipation rejection of Claim 1 is improper because, among other reasons, Maccabee does not disclose monitoring response times of a web site system "as seen from multiple geographic locations, including locations that are geographically remote from each other." In connection with this claim language, the Examiner points to col. 6, line 62 to col. 7, line 3 of Maccabee. The cited portion of Maccabee describes how a request from a client 100 is passed over a network 115 to an application server 120. Although the cited text states that the network 115 can include "many switching locations," the reference does not explicitly or inherently disclose monitoring the response times of the application server 120 as seen from these locations. Thus, the cited portion of Maccabee does not disclose the above-quoted limitations.

The anticipation rejection of Claim 1 is also improper because Maccabee does not disclose the limitations of subparagraph (c). In connection with this subparagraph, the Examiner

points to col. 3, lines 35-45 and col. 5, lines 8-17 of Maccabee. The cited text of col. 3 appears to summarize processes in which related transactions are aggregated, and in which transactions are decomposed into their component stages, for purposes of reporting collected data to users. See, e.g., col. 3, lines 54-67; col. 4, lines 41-46; col. 9, lines 5-9; and col. 10, line 55 to col. 11, line 6. The cited text of col. 5 summarizes a process by which sensor-generated events are analyzed and aggregated by a processor (see block 210 in Figs. 1B and 1C) to generate additional events. This process involves the use of correlation data, such as IP addresses, user IDs, etc., to identify events that are related to each other. See col. 4, line 61 to col. 5, line 3 and col. 8, lines 15-47.

Neither the cited portions nor any other portion of Maccabee describes a process that involves the limitations of subparagraph (c). In this regard, although the term "correlate" (and its derivatives) appears throughout Maccabee, the term is not used to refer to correlations "between changes in the response times and changes in values of the plurality of server resource utilization parameters" as claimed. Rather, the term is used to refer to the process of identifying and aggregating events and transactions that are related to one another.

Because Maccabee does not disclose all of the limitations of Claim 1, the anticipation rejection of Claim 1 is improper.

Dependent Claim 11

Because Claim 11 depends from Claim 1, the anticipation rejection of Claim 11 is improper for the reasons explained above for Claim 1. In addition, the rejection of Claim 11 is improper because Maccabee does not disclose the limitations added by Claim 11, namely "applying a statistical algorithm to a sequence of response time measurements resulting from (a) to automatically detect a degradation in performance." In connection with these limitations, the Examiner merely points to col. 3, lines 54-67 or Maccabee, without explaining how the cited text discloses the limitations at issue. Indeed, it does not.

Dependent Claim 12

Because Claim 12 depends from Claim 11, the anticipation rejection of Claim 12 is improper for the reasons provided above for Claims 1 and 11. In addition, the rejection of Claim 12 is improper because Maccabee does not disclose "processing server resource utilization

measurements resulting from (b) to identify at least one server resource parameter having a correlation with the degradation in performance." The Office Action does not fully address these limitations, but instead refers back to the rejections of Claims 1 and 11.

Dependent Claim 30

Because Claim 30 depends from Claim 1, the anticipation rejection of Claim 30 is improper for the reasons explained above for Claim 1. In addition, the anticipation rejection of Claim 30 is improper because Maccabee does not disclose the limitations added by Claim 30, namely "in response to detecting in (c) a correlation between a response time degradation and a particular server resource utilization parameter, providing a visual representation of said correlation to a user."

In connection with this claim, the Examiner points to the report generator 400 in Fig. 1D, and to the corresponding description at col. 8, line 58 to col. 9, line 9. While the cited portions of Maccabee may describe the generation of graphical reports regarding the availability and performance of transactions, nothing in Maccabee suggests that these reports include a visual representation of a correlation between a response time degradation and a particular server resource utilization parameter.

Independent Claim 13

Independent Claim 13 reads as follows:

> 13. A system for monitoring performance of a deployed transactional server, the system comprising:
>
> a first agent configured to monitor a transactional server over a network, the first agent collecting performance data including response times of the transactional server;
>
> a second agent configured to monitor server resource utilization of the transactional server, the second agent collecting data on one or more server resource utilization parameters, wherein the second agent monitors server resource utilization over a time period in which the first agent monitors the transactional server; and
>
> an analysis component that automatically detects correlations between response times of the transactional server as monitored by the first agent and particular server resource utilization parameters as monitored by the second agent.

The anticipation rejection of Claim 13 is improper because Maccabee does not disclose "an analysis component that automatically detects correlations between response times of the transactional server as monitored by the first agent and particular server resource utilization parameters as monitored by the second agent." In connection with this claim language, the Examiner points to col. 3, lines 35-45 and col. 5, lines 8-17 of Maccabee. As explained above in connection with Claim 1, these portions of Maccabee summarize how transactions are aggregated and decomposed for reporting collected data to users, and how sensor-generated events are analyzed and aggregated to generate additional events. Nothing in these or any other portion of Maccabee discloses an analysis component that meets the limitations of Claim 13. In this regard, the term "correlate" and its derivatives is not used in Maccabee to refer to correlations between response times and server resource utilization parameters as claimed; rather, the term is used to refer to the aggregation of related events into transactions, and to the aggregation of related transactions for reporting purposes.

Because Maccabee does not disclose all of the limitations of Claim 13, the anticipation rejection of Claim 13 is improper.

Dependent Claim 15

Because Claim 15 depends from Claim 13, the anticipation rejection of Claim 15 is improper for the reasons explained above for Claim 13. In addition, the rejection of Claim 15 is improper because Maccabee does not disclose the following limitations added by Claim 15: "wherein the first agent sends request messages to the transactional server to measure the response times." The cited portion of Maccabee, namely col. 5, lines 4-7, describes how sensors send event messages to their agents. Neither this nor any other portion of Maccabee discloses an agent that sends request messages to the transactional server, to measure response times of the transactional server, in the context of the system of Claim 13.

Dependent Claim 17

Because Claim 17 depends from Claim 13, the anticipation rejection of Claim 17 is improper for the reasons explained above for Claim 13. In addition, the rejection of Claim 17 is improper because Maccabee does not disclose the following limitations added by Claim 17:

"further comprising a report generating component that generates reports associating the response times with the server resource utilization parameters by displaying the response times and the server resource utilization parameters on a time-synchronized graph to permit a human operator to evaluate correlations detected by the analysis component." The cited portion of Maccabee, namely Fig. 14 and col. 9, lines 2-10, simply do not disclose these limitations.

Dependent Claim 19

Because Claim 19 depends from Claim 13, the anticipation rejection of Claim 19 is improper for the reasons explained above for Claim 13. In addition, the rejection of Claim 19 is improper because Maccabee does not disclose the following limitations added by Claim 19: "wherein the analysis component analyzes sequences of values of said response times to automatically detect degradations in the performance of the transactional server." The cited portion of Maccabee, namely col. 3, lines 54-67, does not disclose these limitations. Even if the "measurements" mentioned in this portion of Maccabee are treated as "response times," the limitations of Claim 19 still are not met, as the cited portion of Maccabee does not disclose an analysis component that analyzes sequences of such measurements to detect degradations in the transactional server's performance.

Independent Claim 20

Claim 20 reads as follows:

> 20. A method for monitoring the performance of a transactional server, the method comprising:
>
> receiving performance data from a plurality of computers geographically distributed across a network, the plurality of computers executing transactions on a transactional server while monitoring associated response times;
>
> receiving server resource utilization data from a computer that monitors server resource utilization of the transactional server during execution of the transactions by the plurality of computers; and
>
> automatically analyzing the performance data and the server resource utilization data to detect correlations between the performance of the transactional server and one or more particular server resource utilization parameters.

The rejection of Claim 20 is improper because, among other reasons, Maccabee does not disclose "receiving performance data from a plurality of computers geographically distributed

across a network, the plurality of computers executing transactions on a transactional server while monitoring associated response times." The portions of Maccabee cited in connection with this claim language—namely col. 5, lines 50-58, col. 6, line 62 to col. 7, line 3; and col. 3, lines 25-30, do not disclose a plurality of geographically distributed computers that execute transactions on a transactional server while monitoring associated response times."

The rejection of Claim 20 is also improper because Maccabee does not disclose "automatically analyzing the performance data and the server resource utilization data to detect correlations between the performance of the transactional server and one or more particular server resource utilization parameters." In connection with this claim language, the Examiner again points to col. 3, lines 35-45 and col. 5, lines 8-17 of Maccabee. As explained above in connection with Claim 1, these portions of Maccabee summarize how transactions are aggregated and decomposed for reporting collected data to users, and how sensor-generated events are analyzed and aggregated to generate additional events. Nothing in these portions, or in Maccabee generally, discloses or suggests any type of automatic analysis to detect correlations between the performance of the transactional server and one or more particular server resource utilization parameters as claimed.

Because Maccabee does not disclose all of the limitations of Claim 20, the anticipation rejection of Claim 20 is improper.

Dependent Claim 22

Because Claim 22 depends from Claim 20, the anticipation rejection of Claim 22 is improper for the reasons explained above for Claim 20. In addition, the rejection of Claim 22 is improper because Maccabee does not disclose the limitations added by Claim 22, namely "wherein the server resource utilization data includes central processing unit (CPU) utilization data associated with the transactional server." In connection with this claim, the Examiner points to the background section of Maccabee, particularly at col. 1, lines 21-22. Although this background portion of Maccabee mentions CPU utilization generally, it does not disclose CPU utilization in the context of the other limitations of Claims 20 and 22

Independent Claim 25

Claim 25 reads as follows:

> 25. A method of monitoring the operation of a deployed transactional server, the method comprising:
>
> (a) monitoring response times of the transactional server as seen from multiple geographic locations, including locations that are geographically remote from each other and from the transactional server;
>
> (b) concurrently with (a), monitoring a plurality of server resource utilization parameters associated with the transactional server; and
>
> (c) programmatically evaluating whether a correlation exists between changes in the response times and changes in values of the plurality of server resource utilization parameters over time.

The anticipation rejection of Claim 25 is improper because, among other reasons, Maccabee does not disclose the monitoring of response times of a transactional server "as seen from multiple geographic locations, including locations that are geographically remote from each other." In connection with this claim language, the Examiner points to col. 6, line 62 to col. 7, line 3 of Maccabee. As discussed above in connection with Claim 1, the cited portion of Maccabee describes how a request from a client 100 is passed over a network 115 to an application server 120. Although the cited text mentions that the network 115 can include "many switching locations," Maccabee does not disclose monitoring response times of the application server 120 as seen from these locations. Thus, the cited portion of Maccabee does not disclose the above-quoted limitations of Claim 25.

The anticipation rejection of Claim 25 is also improper because Maccabee does not disclose "programmatically evaluating whether a correlation exists between changes in the response times and changes in values of the plurality of server resource utilization parameters over time." The portions of Maccabee relied on by the Examiner, namely col. 3, lines 35-45 and col. 5, lines 8-17, simply do not disclose this feature. Indeed, there is no disclosure whatsoever in Maccabee of a method that involves evaluating whether a correlation exists between changes in response times of a transactional server and changes in values of server resource utilization parameters.

For the foregoing reasons, the anticipation rejection of Claim 25 is improper and should be withdrawn.

Independent Claim 33

Claim 33 reads as follows:

> 33. A computer-implemented method of analyzing the performance of a server system, the method comprising:
>
> monitoring a first performance parameter of the server system over a period of time to generate a series of values of the first performance parameter, wherein the server system responds to requests from clients during said period of time;
>
> monitoring a second performance parameter of the server system over said period of time to generate a series of values of the second performance parameter; and
>
> automatically analyzing the values of the first and second performance parameters to evaluate whether a correlation exists between the first performance parameter and the second performance parameter.

The anticipation rejection of Claim 33 is improper because Maccabee does not disclose, in the context of the other limitations of the claim, "automatically analyzing the values of the first and second performance parameters to evaluate whether a correlation exists between the first performance parameter and the second performance parameter." In connection with this claim language, the Examiner points to col. 3, lines 35-45 and col. 5, lines 8-17 of Maccabee. As explained above in connection with Claim 1, these portions of Maccabee summarize how transactions are aggregated and decomposed for reporting collected data to users, and how sensor-generated events are analyzed and aggregated to generate additional events. Nothing in these or any other portion of Maccabee discloses an automatic analysis of values of first and second performance parameters to evaluate whether a correlation exists between these performance parameters.

Because Maccabee does not disclose all of the limitations of Claim 33, the rejection of Claim 33 is improper.

Dependent Claim 34

Because Claim 34 depends from Claim 33, the anticipation rejection of Claim 34 is improper for the reasons explained above for Claim 33. In addition, the rejection of Claim 34 is

improper because Maccabee does not disclose the limitations added by Claim 34, namely "wherein the first performance parameter is a response time parameter." Although Maccabee mentions response time as a measure of performance, the reference does not disclose the analysis of a response time parameter as required by the combination of Claims 33 and 34.

Dependent Claim 35

Claim 35 depends from Claim 34, which depends from Claim 33. Thus, the anticipation rejection of Claim 35 is improper for the reasons explained above for Claims 33 and 34. In addition, the rejection of Claim 35 is improper because Maccabee does not disclose evaluating whether a correlation exists between a response time parameter and a server resource utilization parameter, as required by the combination of Claims 33, 34 and 35. The cited portions of Maccabee, including col. 3, lines 25-30 and 35-38, simply do not disclose this feature.

Dependent Claim 36

Claim 36 depends from Claim 34, which depends from Claim 33. Thus, the anticipation rejection of Claim 36 is improper for the reasons explained above for Claims 33 and 34. In addition, the rejection of Claim 36 is improper because Maccabee does not disclose evaluating whether a correlation exists between a response time parameter and an operating system resource parameter, as required by the combination of Claims 33, 34 and 36. Although the background section of Maccabee briefly mentions CPU utilization, there is nothing in Maccabee to suggest the use of a CPU utilization parameter in the context of the claimed method.

2. Obviousness rejection of Claims 10 and 14 over Maccabee in view of Martija.

To establish a prima facie case of obviousness over a combination of references, all of the claim limitations must be taught or suggested by the references, and there must be some teaching, suggestion, or motivation to combine the references. As explained below, the obviousness rejections of Claims 10 and 14 are improper at least because Maccabee and Martija do not teach or suggest all of the limitations of the corresponding base claims.

Dependent Claim 10

Claim 10 depends from Claim 8, which in turn depends from Claim 1. The obviousness rejection of Claim 10 is improper at least because Maccabee and Martija do not teach or suggest

the following limitations of Claim 1: "automatically analyzing the response times and server resource utilization parameters as monitored in (a) and (b) over a selected time period to evaluate whether a correlation exists between changes in the response times and changes in values of the plurality of server resource utilization parameters." As discussed above in connection with Claim 1, although Maccabee discloses the detection of correlations between events and between transactions, there is no disclosure in Maccabee involving the evaluation of whether a correlation exists between changes in the system's response times and changes in values of server resource utilization parameters. Martija does not overcome this deficiency, and the Examiner does not contend otherwise.

Dependent Claim 14

Claim 14 depends from independent Claim 13. The obviousness rejection of Claim 14 is improper because, among other reasons, Maccabee and Martija do not teach or suggest the following limitations of Claim 13: "an analysis component that automatically detects correlations between response times of the transactional server as monitored by the first agent and particular server resource utilization parameters as monitored by the second agent." Although Maccabee discloses the detection of correlations between events and between transactions, there no disclosure in Maccabee to suggest the detection of correlations between response times of a transactional server and particular server resource utilization parameters. Martija does not overcome this deficiency in Maccabee, and the Examiner does not contend otherwise.

3. Obviousness rejection of Claims 23 and 24 over Maccabee in view of Claiborne.

Claims 23 and 24 depend from independent Claim 20. The obviousness rejection of Claims 23 and 24 is improper because, among other reasons, Maccabee and Claiborne do not teach or suggest the following limitations of independent Claim 20: "automatically analyzing the performance data and the server resource utilization data to detect correlations between the performance of the transactional server and one or more particular server resource utilization parameters." As discussed above in connection with Claim 20, Maccabee does not disclose or suggest any type of automatic analysis to detect correlations between the performance of the

transactional server and one or more particular server resource utilization parameters. Claiborne does not overcome this deficiency, and the Examiner does not contend otherwise.

The obviousness rejection of Claims 23 and 24 is also improper because the Examiner has not identified a teaching, suggestion or motivation to combine Maccabee and Claiborne. In connection with this issue, the Examiner asserts that one would have been motivated to add the memory allocation data or communications traffic data of Claiborne to Maccabee because Maccabee teaches a sensor that generates "any extra data necessary to uniquely identify the event" (citing col. 7, lines 54-57). The Examiner has not shown, however, that Claiborne's memory allocation data or communications traffic data would be useful for identifying sensor-generated events of the type described in Maccabee. Thus, the statement in Maccabee relied on by the Examiner does not provide a teaching, suggestion or motivation to combine.

Indeed, one skilled in the art would not have been motivated to add the teachings of Claiborne to Maccabee in the context of the present invention, as Claiborne is directed to a very different purpose than that of the present invention, namely the processing of digital images. See *In re Kahn*, 441 F.3d 977 (Fed. Cir. 2006) (stating that one would have "less motivation or occasion to consider" a reference that is directed to a different purpose than that of the claimed invention, in comparison to a reference directed to the same purpose.).

VIII. CONCLUSION

For the reasons set forth above, Appellants respectfully submit that the rejections of Claims 1-39 are improper, and request that these rejections be reversed.

Respectfully submitted,

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Dated: 11-17-06

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CLAIMS APPENDIX

1. A method of monitoring the operation of a deployed web site system, the method comprising:

(a) monitoring response times of a web site system as seen from multiple geographic locations, including locations that are geographically remote from each other and from the web site system;

(b) concurrently with (a), monitoring a plurality of server resource utilization parameters associated with the web site system from a computer that is local to the web site system; and

(c) automatically analyzing the response times and server resource utilization parameters as monitored in (a) and (b) over a selected time period to evaluate whether a correlation exists between changes in the response times and changes in values of the plurality of server resource utilization parameters.

2. The method of Claim 1, wherein (a) comprises monitoring the response times from agent computers in at least some of the multiple geographic locations.

3. The method of Claim 1, wherein (a) comprises passively monitoring traffic resulting from actual web site users in at least some of the multiple geographic locations.

4. The method of Claim 1, wherein (a) comprises generating page requests from a data center, and sending the page requests to the web site system via Internet points of presence located in at least some of the multiple geographic locations.

5. The method of Claim 1, wherein (b) comprises monitoring at least one server resource utilization parameter of a web server.

6. The method of Claim 1, wherein (b) comprises monitoring at least one server resource utilization parameter of an application server.

7. The method of Claim 1, wherein (b) comprises monitoring at least one server resource utilization parameter of a database server.

8. The method of Claim 1, wherein (b) comprises monitoring at least one server resource utilization parameter of a network device.

9. The method of Claim 8, wherein the network device is a router.

10. The method of Claim 8, wherein the network device is a bridge.

11. The method of Claim 1, further comprising applying a statistical algorithm to a sequence of response time measurements resulting from (a) to automatically detect a degradation in performance.

12. The method of Claim 11, further comprising processing server resource utilization measurements resulting from (b) to identify at least one server resource parameter having a correlation with the degradation in performance.

13. A system for monitoring performance of a deployed transactional server, the system comprising:

a first agent configured to monitor a transactional server over a network, the first agent collecting performance data including response times of the transactional server;

a second agent configured to monitor server resource utilization of the transactional server, the second agent collecting data on one or more server resource utilization parameters, wherein the second agent monitors server resource utilization over a time period in which the first agent monitors the transactional server; and

an analysis component that automatically detects correlations between response times of the transactional server as monitored by the first agent and particular server resource utilization parameters as monitored by the second agent.

14. The system of Claim 13, wherein the first agent is configured to monitor network hop delays.

15. The system of Claim 13, wherein the first agent sends request messages to the transactional server to measure the response times.

16. The system of Claim 13, wherein the first agent passively monitors traffic between client computers and the transactional server to measure the response times.

17. The system of Claim 13, further comprising a report generating component that generates reports associating the response times with the server resource utilization parameters by displaying the response times and the server resource utilization parameters on a time-

synchronized graph to permit a human operator to evaluate correlations detected by the analysis component.

18. The system of Claim 13, wherein the second agent is configured to monitor server resource utilization of a database server.

19. The system of Claim 13, wherein the analysis component analyzes sequences of values of said response times to automatically detect degradations in the performance of the transactional server.

20. A method for monitoring the performance of a transactional server, the method comprising:

receiving performance data from a plurality of computers geographically distributed across a network, the plurality of computers executing transactions on a transactional server while monitoring associated response times;

receiving server resource utilization data from a computer that monitors server resource utilization of the transactional server during execution of the transactions by the plurality of computers; and

automatically analyzing the performance data and the server resource utilization data to detect correlations between the performance of the transactional server and one or more particular server resource utilization parameters.

21. The method of Claim 20, wherein the performance data includes time stamps for associating the performance data and the server resource utilization data.

22. The method of Claim 20, wherein the server resource utilization data includes central processing unit (CPU) utilization data associated with the transactional server.

23. The method of Claim 20, wherein the server resource utilization data includes memory allocation data.

24. The method of Claim 20, wherein the server resource utilization data includes at least one of the following: hits per second data, requests queued data, current connections data, connection attempts data, or disk utilization data.

25. A method of monitoring the operation of a deployed–transactional server, the method comprising:

(a) monitoring response times of the transactional server as seen from multiple geographic locations, including locations that are geographically remote from each other and from the transactional server;

(b) concurrently with (a), monitoring a plurality of server resource utilization parameters associated with the transactional server; and

(c) programmatically evaluating whether a correlation exists between changes in the response times and changes in values of the plurality of server resource utilization parameters over time.

26. The method of Claim 25, wherein (c) comprises automatically analyzing response time data and server resource utilization data resulting from (a) and (b), respectively.

27. The method of Claim 26, further comprising displaying, for a selected time window, a graph of the response times and a graph of at least one of the server resource utilization parameters.

28. The method of Claim 26, wherein (c) comprises analyzing response time data and server resource utilization data resulting from (a) and (b) with an automated analysis system that automatically detects correlations.

29. The method of Claim 25, wherein the transactional server is a web site system.

30. The method of Claim 1, further comprising, in response to detecting in (c) a correlation between a response time degradation and a particular server resource utilization parameter, providing a visual representation of said correlation to a user.

31. A computer system programmed to perform the method of Claim 1.

32. A computer system programmed to perform the method of Claim 20.

33. A computer-implemented method of analyzing the performance of a server system, the method comprising:

monitoring a first performance parameter of the server system over a period of time to generate a series of values of the first performance parameter, wherein the server system responds to requests from clients during said period of time;

monitoring a second performance parameter of the server system over said period of time to generate a series of values of the second performance parameter; and

automatically analyzing the values of the first and second performance parameters to evaluate whether a correlation exists between the first performance parameter and the second performance parameter.

34. The method of Claim 33, wherein the first performance parameter is a response time parameter.

35. The method of Claim 34, wherein the second performance parameter is a server resource utilization parameter.

36. The method of Claim 34, wherein the second performance parameter is an operating system resource parameter.

37. The method of Claim 33, wherein the step of automatically analyzing the values of the first and second performance parameters is performed in response to a user action.

38. A computer system programmed to perform the method of Claim 33.

39. A computer program which embodies the method of Claim 33 represented in computer storage.

EVIDENCE APPENDIX

None

RELATED PROCEEDINGS APPENDIX

None